

---

## Associations Between Job Satisfaction and Employment Protection in Selected European Union Countries

---

Submitted 23/11/20, 1st revision 13/12/20 2nd revision 18/01/21, accepted 15/02/21

Małgorzata Szczepaniak<sup>1</sup>, Agnieszka Szulc-Obłóza<sup>2</sup>

### **Abstract:**

**Purpose:** The article aims to present and discuss associations between the strictness of employment protection (EP) and job satisfaction. It also aims to answer the research question if higher strictness of EP is inversely correlated with lower job satisfaction across the selected European Union-OECD (EU-OECD) member countries.

**Approach/Methodology/Design:** The article's theoretical part discusses the links between the EP and job satisfaction based on studied literature. In the methodological part, EP's analysis with sub-indicators (OECD) and job satisfaction, including cohorts (Eurostat), is performed. EU-OECD countries were grouped into 3 clusters from EP sub-indices' perspective and analyzed using employment protection and job satisfaction characteristics. Besides the taxonomic methods, the Pearson-correlation to identify relationships between EP and job satisfaction was calculated.

**Findings:** Three groups of countries with different strictness of EP were characterized with different job satisfaction levels. The group with the strictest EP reported the lowest level of job satisfaction and conversely. The significant negative Pearson correlation proved this kind of relationship.

**Practical Implications:** The article brings valuable conclusions about the relationships between EP and job satisfaction. The negative significant association between EP and job satisfaction reveals the labor market policy implications towards higher flexibility with a low risk of being unemployed on the labor market to increase job satisfaction. The job satisfaction reported by vulnerable groups on the labor market (such as old and women) is more strongly inversely related to job satisfaction.

**Originality/Value:** The results of the conducted analysis complement the current scientific interest in the field of both: the analysis of overall life satisfaction (psychological well-being in different dimensions of life) and job security (employment protection legislation).

**Keywords:** Employment protection, job satisfaction, institutions.

**JEL classification:** J08, J28, I30.

**Paper Type:** Research article.

---

<sup>1</sup>Department of Economics, Faculty of Economic Sciences and Management, Nicolaus Copernicus University in Toruń, Poland, [m.szczepaniak@umk.pl](mailto:m.szczepaniak@umk.pl);

<sup>2</sup>Department of Human Resource Management, Faculty of Economic Sciences and Management, Nicolaus Copernicus University in Toruń, Poland, [aszulc@umk.pl](mailto:aszulc@umk.pl);

## 1. Introduction

Labor market institutions are understood as rules regulating the functioning of the labor market. As demand and supply-side agents of the market, players respond to an existing set of rules (Berg and Kucera, 2008). D.C. North as the representative of New Institutional Economics, defines institutions as constraints that shape human interaction. These institutions exist to reduce the market's uncertainty by establishing a stable structure (North, 1990; Cristea and Thalassinou, 2016). An example of institutions on the labor market is employment protection rules in use, which regulate regular and temporary employment. However, the complexity of variables that influence the action arena on the labor market hinders institutional structure analysis (Szulc-Obłozą, 2018; Szczepaniak and Szulc-Obłozą, 2019).

Rules of employment protection may affect the welfare and the well-being of workers (Ręklewski and Ryczkowski, 2016). The rising interest in the non-material dimensions of well-being includes overall life satisfaction and different aspects of life, among which job is one of the most important (OECD, 2015). Job satisfaction analysis may help answer how the labor market's economic policy can be shaped to make work more satisfying. The fundamentals of such analysis are that job satisfaction is strongly and positively related to over-life satisfaction. People satisfied with their job are more likely to trust other people, have a higher propensity to have some civic engagement (Glatzer *et al.*, 2015), and report higher overall life satisfaction and happiness (Borkowska, 2004).

In this article, European Union member states which belonged to the OECD were analyzed. The availability of employment protection data (OECD) and job satisfaction data (Eurostat) in 2018 was the criterium for qualifying the country for the study. Finally, 23 countries were analyzed. The article aims to present and discuss associations between the strictness of employment protection (EP) and job satisfaction and answer the research question if higher strictness of EP is inversely correlated with lower job satisfaction across the selected European Union-OECD (EU-OECD) member countries.

## 2. Literature Review

Institutions are not "regulations against the market"; they should support the search for economic efficiency and complement markets (Buttler *et al.*, 2005). Employment protection (EP) is an important part of the labor market institutional structure (Eichhorst *et al.*, 2015). However, strict employment protection legislation reduces both flows out of jobs and flows into jobs because higher costs for a dismissal hinder layoffs and lead employers to be reluctant in hiring (OECD, 2020; Haltiwanger *et al.*, 2014; OECD 2013; Buttler *et al.*, 2005). High employment protection legislation leads to fewer dismissals when firms are faced with negative shocks, but when faced with a positive shock, the employment response is also smaller. The overall effect of impediment displays the reduction of the speed of adjustments to shocks (Caballero *et al.*, 2013). Fewer job flows mean a lower risk of job loss but harm the employment

of outsiders. The strong position of insiders derives from the high costs of employees' turnover, replacing the current workforce with new staff (Kwiatkowski, 2005). Therefore, restricted employment protection legislation encourages labor market durability (Millan *et al.*, 2013; Caran and Noja, 2015). R. Di Tella and R. MacCulloch found that countries with less restricted labor markets have higher employment rates and higher rates of participation in the labor force (Di Tella and MacCulloch, 2005; Buttler *et al.*, 2005). Additionally, research on the labor market has found that strict regulations slow down innovation, productivity, and economic growth (OECD, 2020; Noja, 2018; Thalassinou *et al.*, 2019).

There is a growing concern exploring the links between employment protection (EP) and subjective well-being (happiness). However, there is diversity in conclusions because different variables are considered in the field of labor market institutions to protect employment (for example, active and passive labor market policies, job insecurity, or employment protection legislation) and subjective well-being (overall life satisfaction, Happiness Index, Better life index).

This paper focuses on the relationship between the strictness of employment protection and a particular kind of subjective well-being - job satisfaction. The examples from the literature reveal the relationship: the stricter EP (, the less flexible labor market), the lower job satisfaction.

Fewer restrictions on employment protection increase perceived freedom and control of work autonomy (fewer restrictions) and finally improves job satisfaction (Galie, 2012). Lower employment protection (labor market policies toward higher flexibility on the labor market) can positively affect overall life satisfaction. Self-reported well-being is substantially higher among those who deem it as "not at all likely" that they will lose their job, and substantially lower among those who report "it would be at all easy to find another job" (Theodossiou and Vasileiou, 2007). Another aspect covered in the literature that may have a significant impact on job satisfaction is the unemployment risk and the system of protection in case of unemployment. Job protection is often measured using both perceived unemployment risk of job loss shortly and how likely it is that a worker could find another job (Blanchflower and Oswald, 2011). Strict employment protection does not significantly affect aggregate unemployment but affects a particular group's labor market situation. Strict EP decreases female full-time employment but does not affect male employment. Also, strict EP reduces youth entry into labor markets (Bassanini and Duval, 2006). The contract's length may not affect job satisfaction if workers perceive that they are not at risk of becoming unemployed. Even permanent workers may feel insecure and unsatisfied if they are likely to lose their jobs, and low flows characterize the labor market out of employment due to strict EP (Origo and Pagani, 2009). Stricter EP leads to lower job satisfaction because of higher unemployment and difficulties in finding a new job. Due to flexibility in the labor market, most vulnerable groups (e.g., people in weak social positions, women) can enter the labor market and improve their well-being (Eichhorst *et al.*, 2015).

### **3. Data and Methodology**

#### **3.1 Employment Protection**

There are alternative ways of measuring institutions' labor market (Heritage Foundation, 2020; Fraser Institute, 2020). In this article, data on employment protection are considered institutions in force on the labor market and are characterized by information in the OECD Employment Protection Legislation Database. The strictness of employment protection (EP) is characterized by three components: rules affecting the individual dismissal of workers with regular employment contracts (EPR), institutions governing temporary employment (EPT), and collective dismissal procedures (EPC). Sub-indices were downloaded from the database in the last available versions; EPR\_v4, EPT\_v3, and EPC\_v4 (OECD, 2020; OECD database, 2020).

Employment protection (EP) as an overall summary indicator was calculated according to the approach presented by OECD, by combining the three sub-indicators, with the collective dismissal indicator weighted at 40 percent of the other two to reflect the extent to which it consists of rules which operate in a supplementary way to those of the other two (OECD, 1999). Hence, EP is the weighted sum of version 3 sub-indicators for regular contracts (EPR, weight 5/12), temporary contracts (EPT, weight 5/12), and collective dismissals (EPC, weight 2/12).

The Employment Protection (EP) as the summary indicator was used to build EU-OECD countries' ranking. Countries with more rigid rules open the ranking, and similar countries with flexible ones end the list. The scores of sub-indicators and the overall summary indicator are expressed on a scale of 0 to 6, with 6 representing maximum strictness (Table 1).

The employment protection index (EP) evaluates the regulations on temporary and regular contracts and includes individual and collective dismissals. The overall summary indicator of employment protection ranged in selected countries from 3.08 in Luxembourg to 1.33 in the United Kingdom (Table 1). The countries that took the top 3 places, in order, are Luxembourg, France, and Portugal. These countries may be characterized as the most rigid employment protection economies. On the contrary, the least regulated (flexible) countries in the ranking are the United Kingdom, Ireland, and Hungary. The average employment protection index for 23 selected countries in 2018 was 2.32. Poland stands out as the country with an index almost similar to the average (Table 1). Moreover, the score EP for Poland (2.31) is a value separating the higher half from the lower half of countries.

**Table 1.** *Ranking of OECD-UE countries by employment protection and sub-indicators in 2018*

Ranking	Country	EP	EPR	EPT	EPC
1	Luxembourg	3.08	2.50	3.83	2.66
2	France	2.86	2.45	3.13	3.25
3	Portugal	2.70	2.85	2.46	2.92
4	Greece	2.70	2.54	2.92	2.55
5	Spain	2.69	2.38	3.10	2.43
6	Czechia	2.65	3.02	2.13	3.05
7	Italy	2.58	2.66	2.33	3.02
8	Slovak Republic	2.51	2.28	2.75	2.46
9	Belgium	2.46	2.72	2.17	2.57
10	Estonia	2.40	1.89	3.04	2.04
11	Latvia	2.33	2.64	1.79	2.89
12	Poland	2.31	2.40	2.21	2.36
13	Slovenia	2.25	2.18	2.13	2.74
14	Netherlands	2.24	2.72	1.48	2.96
15	Sweden	2.18	2.48	1.67	2.72
16	Finland	2.18	2.37	1.75	2.75
17	Germany	2.16	2.22	1.92	2.61
18	Lithuania	2.11	2.25	1.92	2.24
19	Austria	1.95	1.66	2.17	2.14
20	Denmark	1.95	1.84	1.96	2.18
21	Hungary	1.94	1.78	2.00	2.18
22	Ireland	1.75	1.98	1.21	2.52
23	United Kingdom	1.33	1.74	0.54	2.31
Average		2.32	2.33	2.20	2.59

**Source:** *Own calculations.*

### 3.2 Job Satisfaction

Data on satisfaction with the job represent a broad, subjective assessment of the job on a scale of 1-10, considering individual situations and preferences. Job satisfaction is the average of all individuals' ratings on a scale from 0 (not satisfied at all) to 10 (fully satisfied). Job satisfaction represents how a person in employment evaluates or appraises his or her job. It is intended to cover a broad, reflective opinion the person makes of his or her job. It focuses on how people report satisfaction with their job "these days" rather than specifying a longer or shorter period of time. The intent is not to obtain the respondent's current emotional state but to receive a reflective judgment on their level of job satisfaction (Eurostat database, 2020).

The average job satisfaction in EU-OECD countries was at a similar level (7.36) to the overall life satisfaction (7.33) in 2018 (Table 2). The job satisfaction index ranged from the level of 6.2 in Greece and 8.1 in Finland. Data on job satisfaction can also be presented as the percentage of the population rating their job satisfaction as "high", "medium," and "low". This classification is based on a 20:60:20 distribution at the European job satisfaction level. That means having 20% of answers in the lower part

of the scale, 60% in the middle, and 20% in the higher part, which leads to the definition of the following thresholds: 0-5 as "low," 6-8 as "medium" and 9 and 10 as "high" (Eurostat database, 2020). On average, across the analyzed UE-OECD countries, 16% of residents currently in employment expressed low levels of satisfaction with their job, whereas 28% expressed high levels of satisfaction. The remaining residents (56 %) declared medium levels of satisfaction with their job. This is a huge diversity among EU countries in this field. More than three times more residents currently in employment expressed a high level of satisfaction with their job in Finland (41%) than in Greece (12%) (Table 2). The gap is even wider when a low level of job satisfaction is analyzed. Six times more residents expressed a low level of job satisfaction in Greece (30%) than in Finland (5%).

**Table 2.** Ranking of UE-OECD countries by job satisfaction and other measures of subjective well-being in 2018

Ranking	Country	Job satisfaction	Overall life satisfaction	Share of people rating their job satisfaction as high	Happiness index
1	Finland	<b>8.10</b>	<b>8.10</b>	<b>41.40</b>	7.40
2	Austria	8.00	8.00	40.20	7.20
3	Ireland	7.80	8.10	38.40	7.60
4	Sweden	7.70	7.80	35.10	7.70
5	Denmark	7.60	7.80	39.60	<b>8.50</b>
6	Estonia	7.60	7.00	33.30	6.50
7	Belgium	7.50	7.60	23.50	6.80
8	Netherlands	7.50	7.70	20.80	8.00
9	Slovenia	7.50	7.30	30.30	7.00
10	Czechia	7.40	7.40	30.10	6.50
11	Latvia	7.40	6.70	27.50	6.10
12	France	7.30	7.30	20.70	6.60
13	Luxembourg	7.30	7.60	22.70	7.40
14	Poland	7.30	7.80	27.70	6.20
15	Spain	7.30	7.30	25.60	6.70
16	Italy	7.20	7.10	18.90	5.70
17	United Kingdom	7.20	7.60	29.00	7.50
18	Hungary	7.10	6.50	22.60	6.00
19	Portugal	7.10	6.70	23.70	5.90
20	Slovak Republic	7.10	7.10	27.70	6.30
21	Germany	7.00	7.40	25.00	7.10
22	Lithuania	7.00	6.40	26.00	6.20
<b>23</b>	<b>Greece</b>	<b>6.20</b>	<b>6.40</b>	<b>12.10</b>	<b>4.80</b>
Average UE-OECD		7.36	7.33	27.91	6.77

**Note:** Countries were grouped by the highest job satisfaction. Min. and max. values were bolded.

**Source:** Own elaboration on the basis of Eurostat and World Database of Happiness directed by Ruut Vennhoven, Erasmus University of Rotterdam, Happiness Economics Research Organisation.

The percentage of employed people who rated their job satisfaction as high was more diversified across analyzed UE-OECD countries than the average job satisfaction. It was more than three times higher in Finland (41.4%) than in Greece (12.4%). When Happiness Index is taken into consideration, Denmark and Netherlands are at the top of the ranking, and Greece is at the bottom (Table 2). Considering all analyzed subjective well-being measures at the top of the ranking are such countries as Finland, Austria, and Denmark. On the contrary, the lowest subjective well-being was identified in Greece, Lithuania, and also Italy when Happiness Index is analyzed (Table 2).

**Table 3.** *Job satisfaction from the perspective of gender, education, and age in EU-OECD in 2018*

Country	Job satisfaction							
	Gender		Education			Age		
	Males	Females	ED1	ED2	ED3	YOUNG	MED	OLD
Austria	7.90	8.10	7.70	8.00	8.00	<b>8.15</b>	7.95	8.00
Belgium	7.50	7.50	7.40	7.50	7.60	7.55	7.45	8.40
Czechia	7.40	7.40	6.50	7.30	7.90	7.40	7.40	8.10
Denmark	7.70	7.50	7.80	7.70	7.50	7.25	7.65	<b>8.90</b>
Estonia	7.50	7.70	7.50	7.50	7.80	7.70	7.60	8.00
Finland	<b>8.10</b>	<b>8.10</b>	<b>8.10</b>	<b>8.10</b>	<b>8.10</b>	7.95	<b>8.10</b>	8.70
France	7.30	7.20	7.20	7.20	7.30	7.30	7.25	8.10
Germany	7.00	7.00	7.00	7.00	7.20	7.30	6.95	7.60
Greece	<b>6.20</b>	<b>6.20</b>	<b>5.50</b>	<b>6.10</b>	<b>6.80</b>	<b>6.10</b>	<b>6.25</b>	<b>6.50</b>
Hungary	7.10	7.10	6.10	7.00	7.60	7.15	7.00	8.00
Ireland	7.80	7.80	8.00	7.80	7.80	7.80	7.85	8.60
Italy	7.20	7.20	6.70	7.30	7.70	7.20	7.25	7.20
Latvia	7.40	7.40	6.90	7.20	7.70	7.50	7.30	8.10
Lithuania	7.10	7.00	5.90	6.60	7.60	7.35	6.85	7.60
Luxembourg	7.40	7.20	7.20	7.30	7.30	7.40	7.30	7.30
Maximum	8.10	8.10	8.10	8.10	8.10	8.15	8.10	8.90
Minimum	6.20	6.20	5.50	6.10	6.80	6.10	6.25	6.50
Netherlands	7.50	7.50	7.60	7.50	7.50	7.50	7.50	8.20
Poland	7.40	7.30	6.90	7.10	7.60	7.35	7.25	7.60
Portugal	7.10	7.00	7.00	7.20	7.10	7.25	7.00	7.00
Slovak Republic	7.20	6.90	6.20	6.90	7.80	7.00	7.05	8.30
Slovenia	7.50	7.50	6.90	7.30	7.80	7.65	7.40	7.30
Spain	7.40	7.30	7.10	7.10	7.60	7.45	7.30	7.40
Sweden	7.70	7.70	7.90	7.70	7.60	7.60	7.70	8.70
United Kingdom	7.30	7.20	7.30	7.20	7.20	7.10	7.25	8.50
Average	7.38	7.34	7.06	7.29	7.57	7.39	7.33	7.92

**Note:** ED1 – group of people in work with less than primary education (ISCED levels 0-2), ED2 - group of people in work with upper secondary and post-secondary non-tertiary education (ISCED levels 3 and 4), ED3 - group of people in work with tertiary education (ISCED levels 5-8), young - group of people in work at the age of 16-34, medium - group of people in work at the age between 35-64, old - group of people in work with at the age over 65.

**Source:** Own elaboration on the basis of Eurostat.

It is also important to take a deeper look at job satisfaction, considering such criteria as age, gender, and education. When age is considered, it was observed that older people (over 65) (holding other factors constant) are more satisfied with their job on average. Job satisfaction increases with age on average from 7.4 (young – people at age 16-34) to 7.9 (old – people at age over 65). The highest increase of job satisfaction with age was identified in Denmark (from 7.3 to 8.9) and the United Kingdom (7.1 to 8.5). The countries with the highest job satisfaction among old are Denmark, Finland, Sweden, the United Kingdom, and Ireland. Surprisingly, countries with the highest job satisfaction among the young (16-34): Austria, Luxembourg, Portugal, Slovenia, and Spain. However, it is a minority. There is a slight difference between males' and females' job satisfaction on average, taking gender into account (holding other factors constant). Men are a little more satisfied with their jobs (7.4) than women (7.3) on average. However, there are two countries where women are more satisfied with their job (Austria and Finland), while the highest job satisfaction among women (8.1) was observed in these countries. When education is considered, more educated people are more satisfied with their jobs in almost all UE-OECD countries (holding other factors constant). The exemptions are Denmark, Ireland, the Netherlands, and the United Kingdom, where job satisfaction among ED\_1 (Lower secondary education: ISCED levels: 0-2) is higher than for better educated (upper secondary and tertiary education ISCED levels 3-4 and 5-8).

#### 4. Results and Discussion

OECD-UE countries were grouped in clusters, including sub-indicators characterizing the strictness of regular employment contracts (EPR), temporary employment (EPT), and collective dismissal (EPC). The grouping was performed using Ward's minimum variance method in R software, and results are presented in the dendrogram (Figure 1) (Everitt *et al.*, 2011; Murtagh and Legendre, 2011; Ward, 1963).

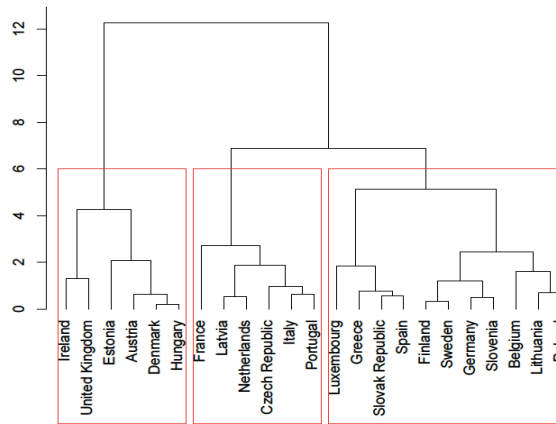
The first of three groups are flexible and contain Ireland, the United Kingdom, Estonia, Austria, Denmark, and Hungary. In this group, each country is characterized by an EPR sub-index lower than 2, which does not appear in any country from the other two groups (Table 1). Inflexible group averages of sub-indexes: EPR (1.82), EPT (1.82), and EPC (2.23), are lower than averages for all 23 analyzed OECD-UE countries (Table 1).

France, Latvia, Netherlands, Czechia, Italy, and Portugal are classified into the second group, called the rigid group. In this group, the sub-index characterizing collective dismissals (EPC) is the highest in other countries, more than 2.89. The averages of sub-indexes calculated for this group are higher than averages for all analyzed countries, respectively: EPR=2.72; EPT=2.22; EPC=3.02.

The last group includes countries with an average level of protection on the labor market. The average group belongs to Luxembourg, Greece, Slovak Republic, Spain, Finland, Sweden, Germany, Slovenia, Belgium, Lithuania, and Poland (Figure 1).



**Figure 1.** Dendrogram – clusters of UE-OECD countries in 2018



*Source:* Own elaboration.

Seeking the relationship between employment protection and job satisfaction, the average share of people who rated their job satisfaction as high was calculated in the three identified groups. The highest average share of people declaring high job satisfaction appears in the first (flexible) group, 34%. Hence, the identified flexible group may be named as a group with high job satisfaction. The second group is characterized by the smallest share of employment people who declare job satisfaction as high (24%) and is named a group with low job satisfaction. Third group, job satisfaction and strictness of employment protection are on medium level – 27% of people declare their job satisfaction as high (Table 3).

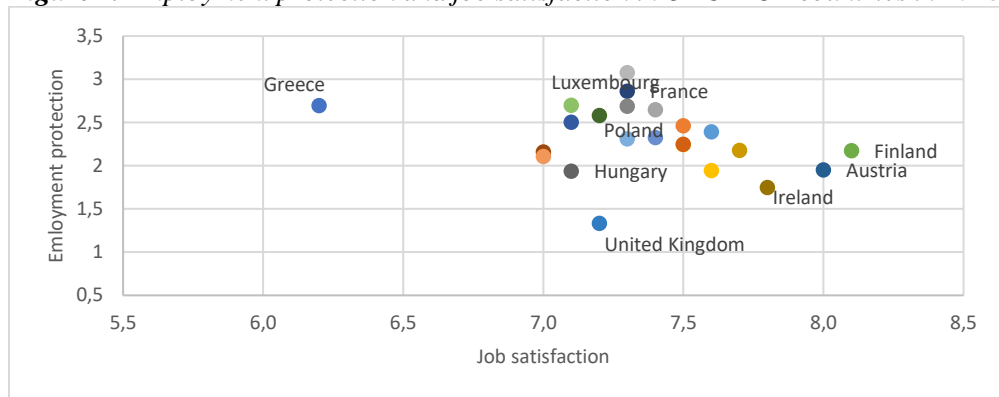
**Table 3.** The characteristics of the three groups from the perspective of strictness of employment protection and job satisfaction

	<b>Group I</b>	<b>Group II</b>	<b>Group III</b>
<b>Strictness of employment protection</b>	Low strictness (flexible group)	High strictness (rigid group)	Average strictness
<b>Job satisfaction</b>	<b>High</b>	<b>Low</b>	Medium

*Source:* Own elaboration.

The relationship between employment protection and job satisfaction for particular countries was presented in Figure 2. Greece is clearly the worst case when job satisfaction is considered, but quite strict EP is observed simultaneously. The lowest EP in the United Kingdom and Ireland and moderate job satisfaction (UK), and relatively high job satisfaction in Ireland were observed. In order to measure the strength and direction of relationship between the employment protection (EP – an overall summary indicator) and job quality the Pearson correlation coefficient ( $r$ ) was used. Assumed that the strength of the relationship may be characterised as: small /weak correlation ( $0.1 < |r| < 0.3$ ), medium / moderate correlation ( $0.3 < |r| < 0.5$ ) and large/strong correlation ( $0.5 < |r| < 1$ ) (Cohen, 1988). It is assumed that if the p-value is lower than the 15% ( $p < 0.15$ ) the correlation coefficient is called statistically significant.

**Figure 2.** Employment protection and job satisfaction in OECD-UE countries in 2018



**Source:** Own elaboration on the basis of Eurostat.

**Table 4.** Pearson correlations between employment protection and job satisfaction and their different dimensions, and overall life satisfaction and happiness index in UE-OECD countries in 2018

Pearson correlation between EP and:	Job satisfaction									Overall life satisfaction	Happiness Index
	Total	Gender		Education			Age				
		males	females	ED1	ED2	ED3	young	medium	old		
r =	-0.31	-0.32	-0.35	-0.29	-0.30	-0.21	-0.25	-0.32	-0.55	-0.29	-0.44
	p=0.15	p=0.14	p=0.10	p=0.17	p=0.17	p=0.34	p=0.26	p=0.14	p=0.01	p=0.18	p=0.04

**Note:** Explanation of Education and Age groups as in table 3.

Dark grey - significant correlation between job satisfaction dimension and EP at the level  $p=0.1$ ; light grey - significant correlation at level  $p=0.15$ .

**Source:** Own elaboration.

The results of correlation analysis are presented in Table 4. All the Pearson correlation coefficient signs are negative what proves the hypothesis about the inverse relationship between employment protection and job satisfaction. The correlation between overall life satisfaction and EP is not statistically significant, probably because the overall life satisfaction considers a broad perspective of life. However, when Happiness Index was analyzed strong negative relationship was identified. The most important relationship from the research aims - EP and job satisfaction relationship was statistically significant and moderate. Moreover, the significant, strong, negative association between the average share of people in employment rated their job satisfaction as high, and employment protection was identified ( $r=-0.53$ ,  $p=0.01$ ). A stronger statistically significant correlation was identified for women than men when gender perspective is considered. It means that women's job satisfaction is more sensitive to the strictness of EP. When EP increases, then women's job satisfaction decreases more than men. Relationships between EP and education at all levels occurred to be statistically insignificant. An interesting result is also when age criterium is taken into consideration. The strength of correlation between EP and job

satisfaction increases with age. For the people at the age above 65, a significant negative strong correlation was identified. Concluding, vulnerable groups such as women and old are less satisfied with their job when employment protection is stricter (Table 4).

## **5. Conclusions**

Labour institutions are embedded in social norms. Intervention intends to improve social justice for workers. As such, labor institutions should not be envisaged as a cost on the economy that slows the economy (Berg and Kucera, 2008). However, the question about the degree of intervention by institutions to guarantee the best conditions to cooperate and lead to job satisfaction arises.

The article brings valuable conclusions about the relationships between employment protection and job satisfaction. It was proved that the labor institutions in the form of employment protection (EP) are related to job satisfaction. The negative significant association between EP and job satisfaction reveals the labor market policy towards higher flexibility with low risk of being unemployed on the labor market increases job satisfaction. Hence, legitimate is to highlight that institutions should “protect workers, not jobs” (OECD, 2020). In other words, more attention should be placed on the possibility to find a job easily with consideration of two pillars: individual employability and labor market mobility (Zekic, 2016; European Commission, 2007). Therefore, the institutional structure should be targeted towards the expectation of remaining in work but not necessarily with the same employer.

What is more, the strongest inverse relationship between EP and job satisfaction reported by women and old was identified, which occurred to be the most vulnerable groups on the labor market from the point of view of employment protection. When employment is highly protected, it is more difficult to find a job for women, and people above the age of 65 who are in the majority retired, which is significantly related to EP. Hence, rigid rules in use on the labor market may exacerbate outsider's situation on the market.

## **References:**

- Bassanini, A., Duval, R. 2006. *Employment Patterns in OECD Countries: Reassessing the Role of Policies and Institutions*. OECD Economics Department Working Papers 486, OECD Publishing.
- Berg, J., Kucera, D. 2008. *Labour Institutions in the Developing World: Historical and Theoretical Perspectives*. In: Berg J., Kucera D. 2008. *In Defence of Labour Markets Institutions. Cultivating Justice in the Developing World*. Palgrave Macmillan.
- Blanchflower, D.G., Oswald, A. 2011. *International Happiness*. NBER WORKING PAPER SERIES, Working Paper 16668. Retrieved from: <http://www.nber.org/papers/w16668>.
- Borkowska, S. 2004. *Praca a życie zawodowe*. In: Borkowska S. 2004. *Przyszłość pracy w XXI wieku*. Instytut Pracy i Spraw Socjalnych. Warszawa.

- Buttler, F., Franz, W., Schettkat, R., Soskice, D. 2005. Institutional Frameworks and Labor Market. In: Buttler F., Franz W., Schettkat R., Soskice D. 2005. Institutional Frameworks and Labor Market Performance. Comparative Views on the U.S. and Germany Economics. Routledge. London. New York.
- Caballero, R.J., Cowan, K.N., Engel, E.M.R.A., Micco, A. 2013. Effective labor regulation and microeconomic flexibility. *Journal of Development Economics*, 101, 92-104. doi.org/10.1016/j.jdeveco.2012.08.009.
- Caran, M., Noja, G.G. 2015. Employee benefits in multinational firms: Empirical evidence for Romania and Serbia. *Megatrend revija*, 12(2), 155-170.
- Cohen, J. 1988. *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cristea, M., Thalassinou, I.E. 2016. Private Pension Plans: An Important Component of the Financial Market. *International Journal of Economics and Business Administration* 4 (1), 110-115, DOI: 10.35808/ijeba/95.
- Di Tella, R., MacCulloch, R. 2005. The consequences of labor market flexibility: Panel evidence based on survey data. *European Economic Review*, 49(5). 1225-1259. doi.org/10.1016/j.eurocorev.2003.11.002.
- Eichhorst, W., Wozny, F., Mahonen, E. 2015. What Is a Good Job? IZA DP No. 9461.
- European Commission. 2007. Communication from the Commission to the Council, the European Parliament, The European Economic and Social Committee and the Committee of the Regions. Towards Common Principles of Flexicurity: More and better jobs through flexibility and security. COM - 628.
- Eurostat database. 2020. Retrieved from: [https://ec.europa.eu/eurostat/cache/metadata/en/ilc\\_pwb\\_esms.htm](https://ec.europa.eu/eurostat/cache/metadata/en/ilc_pwb_esms.htm).
- Everitt, B., Landau, S., Leese, M., Stahl, D. 2011. *Cluster analysis*. Wiley.
- Fraser Institute. 2020. Retrieved from: <https://www.fraserinstitute.org/economic-freedom/approach>.
- Galie, D. 2012. Skills, Job Control and the Quality of Work: The Evidence from Britain, Geary Lecture 2012. *The Economic and Social Review*, 43(3).
- Glatzer, W., Camfield, L., Moller, V., Rojas, M. (ed.). 2015. *Global Handbook of Quality of Life. Exploration of Well-Being of Nations and Continents*, Springer.
- Haltiwanger, J., Scarpetta, S., Schweiger, H. 2014. Cross country differences in job reallocation: The role of industry, firm size and regulations. *Labour Economics*, 26, 11-25. doi.org/10.1016/j.labeco.2013.10.001.
- Heritage Foundation. 2020. Retrieved from: <https://www.heritage.org/index/about>.
- Kwiatkowski, E. 2005. *Bezrobocie. Podstawy teoretyczne*. Wydawnictwo Naukowe PWN, Warszawa.
- Millan, A., Millan, J.M., Roman, C., Stel, A. 2013. How does employment protection legislation influence hiring and firing decisions by the smallest firms? *Economics Letters*, 121, 444-448. doi.org/10.1016/j.econlet.2013.09.021.
- Murtagh, F., Legendre, P. 2011. Ward's Hierarchical Clustering Method: Clustering Criterion and Agglomerative Algorithm.
- Noja, G.G. 2018. Flexicurity models and productivity interference in CEE countries: a new approach based on cluster and spatial analysis. *Economic research-Ekonomska istraživanja* 31(1), 1111-1136.
- North, D.C. 1990. *Institutions, Institutional Change and Economic Performance*. Political Economy of Institutions and Decisions. Cambridge University Press.
- OECD database. 2020. Retrieved from: [https://stats.oecd.org/Index.aspx?DataSetCode=EPL\\_OV](https://stats.oecd.org/Index.aspx?DataSetCode=EPL_OV).

- OECD. 1999. OECD Employment Outlook 1999: Giving Youth a Better Start. doi.org/10.1787/empl\_outlook-1999-en.
- OECD. 2013. OECD Employment Outlook 2013: Protecting jobs, enhancing flexibility: A new look at employment protection legislation. hdoi.org/10.1787/empl\_outlook-2013-6-en.
- OECD. 2020. OECD Employment Outlook 2020: Worker Security and the COVID-19 Crisis. OECD Publishing, Paris. doi.org/10.1787/1686c758-en.
- Origo, F., Pagani, L. 2009. Flexicurity and job satisfaction in Europe. *Labour Economics*, 16(5), 547-555.
- Ręklewski, M., Ryczkowski, M. 2016. The Polish Regional Labour Market Welfare Indicator and its Links to Other Well-being Measures. *Comparative Economic Research*, 19(3). 10.1515/cer-2016-0023.
- Szczepaniak, M., Szulc-Obłóza, A. 2019. Labour market institutions and income inequalities across European Union, *Ekonomia i Prawo. Economics and Law*, 18(3).
- Szulc-Obłóza, A. 2018. Formal rules-in-use on the EU labour market. *Research Papers of Wrocław University of Economics*, 509, 417-428.
- Thalassinos, I.E., Cristea, M., Noja, G.G. 2019. Measuring active ageing within the European Union: Implications on economic development. *Equilibrium, Quarterly Journal of Economics and Economic Policy*, Vol. 14, Issue 4, 591-609. DOI: 10.24136/eq.2019.028.
- Theodossiou, J., Vasileiou, E. 2007. Making the risk of job loss a way of life: Does it affect job satisfaction? *Research in Economics*, 61(2), 71-83.
- Ward, J.H. 1963. Hierarchical Grouping to Optimize an Objective Function. *Journal of the American Statistical Association*, 301(58), 236-244. doi.org/10.2307/2282967.
- Zekic, N. 2016. Job security or employment security: What's in a name? *European Labour Law Journal*, 7(4). 548-575. doi.org/10.1177/201395251600700403.